IN THE SPECIFICATION:

Kindly amend the specification as follows:

Please replace the paragraph beginning on page 1, line 11, with the following new paragraph.

The present invention concerns a second type of photovoltaic cells called electrochemical cells, which include a semi-conductor material that is normally insensitive to visible light because of its forbidden bandwidth, and that only starts to absorb in the near ultraviolet. Such a material can nonetheless be ~~sensitised~~ sensitized by adsorption of a colouring agent such as a transition metal complex which allows a conversion rate between an incident photon and an electron close to one. After having been excited by the absorption of a photon, the colouring agent can transfer an electron into the conduction band of a semi-conductor material. The electric field prevailing at the core of the semi-conductor material enables the electron to be extracted. After transferring the electron, the colouring agent returns to the fundamental ~~oxidised~~ oxidized state. Recombination between the electron in the semi-conductor material conduction band and the hole on the ~~oxidised~~ oxidized colouring agent is much slower than the reduction of the ~~oxidised~~ oxidized colouring agent by a mediator. Consequently, the charge separation is efficient.

Please replace the paragraph beginning on page 2, line 18, with the following new paragraph.

The sealing frame ~~assure~~ assures the hermeticity of the edges of the cell, thereby efficiently retaining the active medium contained by the cells, and protecting this medium from gas diffusion phenomenon from the surrounding atmosphere which could compromise the perenity of the cells.

Please replace the paragraph beginning on page 1, line 22, with the following new paragraph.

Usually, deposition of the sealing frame is carried out by screen printing, a method whose implementation can irremediably damage all of the fragile structures such as the electrical connections or spacers which have already been deposited when the screen printing step occurs. In fact, the screen printing technique, which consists, let us recall, in depositing a material of paste-like consistency through the unobstructed mesh of a screen, for example made of nylon or stainless steel, with a very fine mesh using a squeegee that is actuated by hand or mechanically, is a technique whose implementation generates not insignificant mechanical stress which ~~are~~ <u>is</u> often harmful to the already deposited neighbouring structures, such as the alignment layers, the spacing bars or the electrical connections.

Please replace the paragraph beginning on page 5, line 18, with the following new paragraph.

According to yet another implementation variant of the method of the invention, the walls are formed using a photoresist material dispenser of the ~~seringe~~<u>syringe</u> type.

Please replace the paragraph beginning on page 6, line 11, with the following new paragraph.

Owing to this feature, it is possible to fill the filling channels, not through the side, for example with liquid crystal cells, but through the top of the latter. One can thus work with a whole batch of such cells, without being obliged to divide the batch into strips in order to have access to the filling holes which are usually arranged on the sides of the cells. The cells can thus be practically finished in batches prior to cutting. In particular, filling and sealing the

sealing feed holes with the sealing material for forming the cell sealing frames can be carried out over the whole ~~batche~~batch, thus in a simpler and more economical manner than over individual cells.

Please replace the paragraph beginning on page 9, line 12, with the following new paragraph.

The photolithographic techniques used within the scope of the present invention are of a conventional type and are well known to those skilled in the art. They consist, essentially, in ~~sensitising~~ sensitizing the photoresist layer by means of a light passing through the transparent zones of a mask reproducing the shapes of the zones to be ~~sensitised~~sensitized. As regards the photoresist material, this is also, in a very conventional manner, a photosensitive resin that those skilled in the art will be able to choose without any difficulty, and whose usual purpose is to protect the surface of the layer to be etched from the action of a chemical reactant at the locations where the resin subsists after ~~sensitisation~~ sensitization by the optical radiation and chemical removal of the zones covering the places to be etched. One can cite the photosensitive cycloten from Dow Chemical and the product marketed under the reference SU8 by MicroChem Corp. as materials well suited for making walls 10 and 12.

Please replace the paragraph beginning on page 9, line 24, with the following new paragraph.

Of course, if the sealing frame positioning requirements are less strict, the latter could be structured by screen printing or using a dispenser of the ~~seringe~~syringe type and, more generally, using any selective printing technique such as flexography or ink jet printing which those skilled in the art could select without any difficulty.

Please replace the paragraph beginning on page 9, line 28, with the following new paragraph.

As was stated hereinbefore, after sealed walls 10 and 12 defining filling channel 20 and, where appropriate spacers 14, have been structured, the two substrates 4 and 6 are joined. Said channel 20 can then be filled. In order to do this, a vacuum starts to be made in the working enclosed space in which cell 2 is made. Once the vacuum is established, a drop of sealing material is deposited above hole 18 which communicates with filling channel 20. By capillary action, the sealing material starts to flow into channel 20. Then the atmospheric pressure is re-established in the working enclosed space. Via the pressure difference between the filling channel in which quite a high vacuum prevails and the atmospheric pressure, the sealing material is driven to the bottom of the filling channel. It will be noted that, since filling channel 20 can be of a longer length depending upon the geometry of cell 2, it could be separated into two or several channels isolated from each other by a wall and each filled from a corresponding filling hole 18, so as to shorten the path that the sealing material has to travel to reach the bottom of the channel. Of course, according to a variant, one could also ~~made~~ make at least one filling hole in external wall 10.

Please replace the paragraph beginning on page 10, line 6, with the following new paragraph.

Typically, the material used for sealing cell 2 is a photosensitive resin which is introduced in the liquid state into filling channel 20 and which is then ~~polymerised~~ polymerized by ~~sensitisation~~ sensitization using an ultraviolet light through top substrate 4. The sealing material has to hermetically seal the edges of cell 2 in order to efficiently retain the liquid crystal and protect it from gas diffusion phenomena from the ambient atmosphere. The sealing material must also have an adhesive power in order to enable it to hold the two

substrates 4 and 6 together. By way of variant, the sealing material can also be formed by a resin which will ~~polymerise~~ polymerize via a rise in temperature in the working enclosed space. A dual component adhesive whose components harden over time or via a rise in temperature when they are put in each other's presence can also be used as sealing material. The products Loctite 3492 and Norland Optical Adhesives 61 can be cited as materials well suited for making the sealing frame. The cyanoacrylate adhesives form another family of adhesives well suited to the requirements of the present invention. Finally thermoplastic resins can also be used within the scope of the invention.

Please replace the paragraph beginning on page 10, line 21, with the following new paragraph.

Once the sealing material has been introduced into filling channel 20 and then solidified, the liquid crystal can be introduced into cell 2 via filling hole 16. Advantageously, the introduction of the sealing material, its ~~polymerisation~~polymerization, then the step of introducing the liquid crystal can be carried out one after the other or simultaneously in the same machine. Finally, liquid crystal filling hole 16 is blocked as well as space 28 in immediate proximity to filling hole 16, in order to achieve sealing continuity with the closest parts of wall 12 so that the whole of the periphery of cell 2 is perfectly sealed. Finally, additional layers such as ~~polarisers~~ polarizers can also be deposited on substrates 4 and 6.

Please replace the paragraph beginning on page 11, line 20, with the following new paragraph.

The present invention advantageously casts off constraints linked to the nature of the substrates usually encountered during the manufacture of micro-systems. Indeed, at the present time, either both substrates are made of the same material, for example silicon, and in

this case they are directly welded to each other by a chemical reaction that occurs at a high temperature between the –OH groups present in the primitive oxide layers or obtained by growth which covers said two silicon substrates. Or, one of the substrates is made of silicon and the other is typically made of Pyrex®, and in this case anodic welding has to be used, also called electrostatic welding, which implements temperatures comprised between 180°C and 350°C and electrical voltages of the order of 200 to 1,000 volts. However, owing to the present invention, two substrates can be joined independently of their respective natures, insofar as this operation resembles simple adhesion by means of the cord of sealing material. Further, the present invention can be implemented without the addition of heat or the application of an electrical voltage, which leaves great freedom of choice for the materials to be deposited on the substrates. Conversely, welding two substrates, for example made of silicon, implements welding temperatures of up to 1,000°C. In that case, the materials chosen to be deposited on the substrates must be able to resist such temperatures. Despite the care taken to choose such materials, it is not rare for the thin layers to ~~oxidise~~ oxidize or for the membranes machined in the volume of one of the substrates to deflect and adhere to the other substrate.

Please replace the paragraph beginning on page 12, line 19, with the following new paragraph.

In accordance with the invention, a wall 66 is arranged, for example on bottom substrate 50, preferably but not exclusively by photolithography. This wall 66 defines cavities 68 and 70, which connect feed and evacuation pipes 52 and 54 with actuating chamber. As in the example described in conjunction with Figure 4, the space left vacant between the two substrates 50 and 56 and the outer face of wall 66, which is not in contact with the fluid, is filled by a cord of sealing material 72. Of course, just as previously mentioned, one could

also envisage structuring two walls extending parallel and at a distance from each other ~~one~~ on the surface of one of the two substrates. These two walls would thus define a filling channel which would be filled with sealing material via a filling hole through one of said substrates.

Please replace the paragraph beginning on page 13, line 1, with the following new paragraph.

Likewise, the present invention applies in a similar manner to a large-scale manufacturing method for cells as shown in Figure 7. Such a batch of cells includes two plates 74 and 76 common to all of cells 2 and a network of sealed walls 10 and 12 defining, for each cell 2, a cavity 8 for enclosing the liquid crystals as well as the filling channels 20 which are to be filled with a sealing material to connect the two plates 74 and 76 and form the sealing frames for said cells 2. Advantageously, a first plurality of holes 16 for filling cavities 8 with liquid crystal, and a second plurality of holes 18 for supplying the sealing material are made in upper plate 74. Owing to this feature, it is possible to fill filling channels 20, not through the side, for example of liquid crystal cells, but from the top of the latter. One can thus work with a complete batch of cells, without being obliged to divide the batch into strips to be able to have access to the filling holes that are usually arranged on one of the sides of the cells. The cells can thus be practically finished in batches prior to cutting. In particular, the feed holes can be filled and sealed with the sealing material for forming the sealing frames of the cells for the entire batch, thus in a simpler and more economical manner than with individual cells. Likewise, cells 2 can be filled with liquid crystal and filling holes 16 blocked while the cells are still in batches.